The MWRA Water System



Facts on Quabbin and Wachusett

- Quabbin Reservoir, the Ware River, and Wachusett Reservoir are the water supply sources for 51 communities in Massachusetts.
- The Quabbin and Wachusett Reservoirs together store up to 477 billion gallons of water for everyday use.
- Over 75% of the watershed lands that surround the reservoirs are protected from development. Much of the natural undeveloped land is covered in forest and wetlands which help to keep the water clean and clear.

The Quabbin Reservoir



Winsor Dam at the Quabbin Reservoir

The 150-foot-deep Quabbin Reservoir was built in the 1930s by the construction of two huge earthen dams. The reservoir is fed by the three branches of the Swift River. At 3 miles wide and 18 miles long, it can hold up to 412 billion gallons of water.



Wachusett Reservoir

The Wachusett Reservoir

The Wachusett Reservoir was built between 1897and 1908 by damming the South Branch of the Nashua River. It can store up to 65 billion gallons of water.

About the MWRA

MWRA is a Massachusetts public authority established by an act of the Legislature in 1984 to provide wholesale water and sewer services to 3.1 million people and more than 5,500 large industrial users in 61 metropolitan Boston communities. www.mwra.state.ma.us

MWRA assets are located in an area of more than 800 square miles, spanning from the Chicopee Valley to Boston Harbor. MWRA's water system has more than 200 separate facilities, including the John J. Carroll Water Treatment Plant, with a capacity of 405 million gallons per day (mgd), and the William A. Brutsch Water Treatment Facility, with a capacity of 16 mgd, 11 pump stations, and 14 below- or above-ground storage tanks. The water transmission system has 105 miles of active tunnels and aqueducts (mostly 10 to 14 feet in diameter) and 39 miles of standby aqueducts.



Quabbin Reservoir from the Enfield Lookout

Water Supply Citizens Advisory Committee (WSCAC)

Advising the MWRA on Water Use and Protection in Massachusetts

Get Involved With:

- Water Conservation
- Watershed Protection
- Water Supply Redundancy
- State Water Policy
- Public Education

About WSCAC

Originally formed in 1978 to review a proposed Connecticut River diversion to the Quabbin Reservoir, WSCAC played an active role in the creation of the Long Range Water Supply Study and Environmental Impact Report-2020. With the conclusion of that study in 1990, the Massachusetts Water Resources Authority (MWRA) chose demand management and water source protection as the primary strategies to avoid the projected need for new sources. The Authority also formally adopted WSCAC as its water supply advisory group.

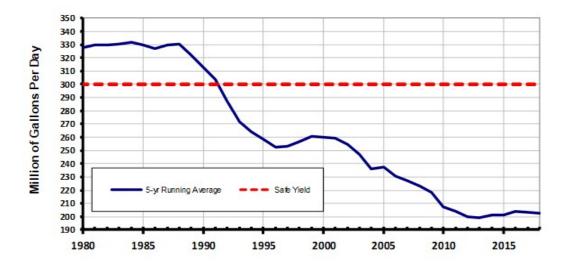
As an independent committee funded by the MWRA, WSCAC provides an ongoing source of public input for the MWRA and state agencies such as the Department of Conservation and Recreation (DCR) and the Department of Environmental Protection (DEP). The committee has participated in securing passage of state legislation including the Interbasin Transfer Act of 1983, the Water Management Act of 1985, and the Watershed Protection Act of 1992.

Since its inception over forty years ago, WSCAC has advised the MWRA and its precursor, the Metropolitan District Commission (MDC), on water conservation and water treatment strategies. The Authority has implemented watershed protection as recommended by WSCAC, as well as demand management programs resulting in annual water withdrawals from the reservoirs dropping significantly below the system's safe yield.

Total Reservoir Withdrawals: 1980 to Present

The chart below illustrates the reduction in average annual water use made possible through:

- Vigorous leak detection and pipeline replacement
- Meter improvements to track/analyze community water use
- New water-efficient plumbing technology for residential water use
- Extensive public information and school education



WSCAC Focus Areas

Water Conservation

WSCAC supports a combination of strong water conservation and demand management as expressed in the Massachusetts Water Conservation Standards. This includes full-cost ascending block rate water pricing, town-wide metering, the use of certified outdoor irrigation companies, and watering restrictions during drought conditions. Requiring the use of watersaving appliances and devices in commercial and residential development will continue the downward water use trend. Consistent and frequent water conservation messaging for public water supply customers and those using private wells continues to be an important public education and outreach tool for communities. The preparation of a drought management plan will enhance a community's readiness to address drought conditions as the climate changes.

Watershed and Reservoir Protection

WSCAC supports source water protection through land acquisition, conservation restrictions, and frequent monitoring. Watershed forestry and logging management, terrestrial and aquatic invasives programs, and monitoring for insects and diseases all play a role in protecting reservoirs and the surrounding watershed. Identifying appropriate public access and recreation allows for watershed use without jeopardizing water quality.

Drinking Water Quality and Reliability

Providing water system redundancy allows infrastructure and facilities to be taken off-line for maintenance or rehabilitation without affecting the reliable delivery of water to MWRA communities. The MetroWest Tunnel, the Wachusett Pump Station, redundant pipeline projects, and the upcoming Metro Tunnel focus on providing dependable water service for public health, sanitation, and fire protection. Maintaining water quality requires sufficient treatment, adequate monitoring including for potential emerging contaminants, and emergency response training in the event of an accident or toxic spill.

MWRA Water System Expansion

Should drinking water come from local sources or a centralized reservoir system? Factors such as water quality, cost, demand, and environmental impacts must be considered. Drought and stronger and more frequent storms can affect public drinking water supplies. Concerned citizens serving as members of WSCAC provide valuable input into complex decisions like these.

WSCAC Membership

WSCAC's diverse membership is balanced geographically and by interest. The committee has a network of volunteers that bring professional and practical experience to a wide range of MWRA water supply and program issues. Members represent watershed associations, water utilities, environmental groups, business interests, educational institutions, regional planning, agricultural interests, sporting organizations, and state legislators within the MWRA service area and beyond to donor water communities surrounding the Quabbin and Wachusett Reservoirs.

Active citizen participation is a good investment, ensuring publicly supportable, cost-effective, and environmentally sound solutions and policies.

WSCAC meets ten times annually at locations in the Central and Eastern parts of the state. Call or email our office for more information.

WSCAC is located at the Quabbin Reservoir

Contact us at: WSCAC

485 Ware Road Belchertown, MA 01007 Phone: (413) 213-0454 FAX: (413) 213-0537 info@wscac.org